

REMARKS

I. Introduction.

Claims 26 and 29 have been amended. New claims 39-48 have been added. Claims 1-25 and 37-38 were previously canceled. Claims 26-36 and 39-48 are currently pending in the application. The amendments and new claims are supported by the application as filed and do not present new matter:

p. 2, lines 8-12; Fig. 1 (primary pipe having an inlet, an outlet and a sidewall defining a conduit for passing fluid);

p. 5, lines 22-23; p. 6, lines 33-35 (limiting movement of scraper);

p. 1, lines 10-22 (aseptic processing; processing of puddings and gels);

p. 2, lines 3-7; Fig. 1 (magnetic coupling between magnetic core attached to the scraper and solenoids or magnets installed outside of the pipe);

p. 6, lines 8-14; Fig. 1 (scraper being coaxially disposed within the conduit);

p. 7, lines 24-28; Fig. 3 (scraper being asymmetrically disposed within the conduit);

p. 5, lines 22-25 (always or continuously attracted or repelled); and

Fig. 1 (measurement device being centrally disposed within the conduit and centrally disposed within the shield).

Initially, Applicants note that the November 2, 2004 Office action included only one rejection, namely, a nonstatutory double patenting rejection based on U.S. Patent No. 6,789,938 ("the '938 patent"). No rejection under 35 U.S.C. §103(a) was made. The subject application and the '938 patent are commonly owned by ConAgra Grocery Products Company. In response to the November 2, 2004 Office action, Applicants submitted a Terminal Disclaimer.

The instant Office action, however, rejected claims 26-30 under 35 U.S.C. §103(a). The §103(a) rejection was not made in the November 2, 2004 Office action. Applicants address the §103(a) rejection here and respectfully request reconsideration of the application. Applicants respectfully submit that the application is in condition for allowance.

II. Claims 26-29 Are Patentable Over Clayton in View of Leith.

Applicants acknowledge that the Examiner has not cited a single reference that discloses each and every limitation of claims 26-29. Rather, independent claim 26 and dependent claims 27-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,644,848 to Clayton et al. (“Clayton”) in view of U.S. Patent No. 2,812,921 to Leith, Jr. (“Leith”). Applicants respectfully submit that Clayton and Leith cannot support the rejection.

To establish a prima facie case of obviousness of a claim under 35 U.S.C. §103(a), all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art. MPEP §2143.03. Moreover, there must be some suggestion or motivation to modify the reference. MPEP §2143.01

First, Applicants have amended claim 26 to point out that the method is directed to a method for cleaning a portion of a protective shield “that is disposed within a conduit or aperture of a pipe, the pipe defining an inlet and an outlet, the conduit for passing fluid from the inlet to the outlet of the pipe, the protective shield containing a measuring device...” In other words, the protective shield is positioned within a passageway or “conduit” of a pipe, rather than within the body of the pipe or between layers of pipe materials. Applicants respectfully submit that the amendment eliminates Clayton from further consideration since, as acknowledged in the Office action, Clayton describes an optical fiber that is located between a pipeline wall and a corrosion layer.

More particularly, the Office action refers to col. 3, lines 1-7 of Clayton as describing a temperature sensing fiber that is located within a pipeline between a wall and a corrosion layer of a pipe. Clayton describes an underwater hydrocarbon pipeline 10 that comprises a standard subset oil pipeline 10A which rests on the seabed SB and comprises a steel pipe sheathed in concentric layers of a corrosion preventing material, a thermal insulation material, concrete and bitten, in that order. An optical fiber 13 is attached to the inner wall periodically along the length of pipeline 10. As acknowledged in the Office action, the optical fiber 13 is located between the pipe and the corrosion preventing layer.

Based on the forgoing amendments and remarks, the Applicants respectfully submit that Clayton fails to disclose or suggest a method for cleaning a portion of a protective shield that is

disposed within a conduit or aperture of a pipe, the pipe defining an inlet and an outlet, the conduit for passing fluid from the inlet to the outlet of the pipe, the protective shield containing a measuring device.

Second, Applicants respectfully submit that Clayton does not disclose or suggest “providing a scraper disposed about at least a portion of the protective shield within the conduit” as recited in claim 26, and as acknowledged in the Office action.

Third, Applicants respectfully submit that Clayton does not disclose or suggest “applying an external force to the scraper to move the scraper within the conduit and longitudinally along the protective shield between first and second positions to thereby clean the portion of the protective shield over which the scraper moves” as recited in claim 26. Rather, as discussed above, Clayton does not disclose or suggest a scraper and does not disclose or suggest a scraper that moves within a conduit and along a protective shield as claimed.

The Office action relies on Leith as disclosing a scraper. (Office action, p. 2). Applicants note, however, that Leith describes a device that is confined within a bore or passageway of a pipeline and that moves debris or accumulated media, and that is useful to move testing materials and instruments through pipe lines. (Leith, col. 1, lines 15-42). The materials or instruments are moved through the pipeline “when the energized electromagnet is rolled along the pipe on its wheels by a man holding the hand-grips... This in turn moves any device which is fastened to the carriage such as radioisotopes or radiographic weld inspection, clean-out cables and so on.” (Leith, col. 2, lines 54-60) (emphasis added). Leith, however, does not cure the deficiencies of Clayton and has its own deficiencies.

Leith does not disclose or suggest “providing a scraper” as called for by claim 26. It appears that the Office action relies on the electromagnetic unit 14 as a scraper. However, the electromagnet unit 14 is not a scraper, and does not perform scraping functions. Rather, the unit 14 is used to generate an electromagnetic field so that the carriage 12 will follow the motion of the unit 14. Assuming that the unit 14 could be used as a scraper, doing so would make it more difficult for a man to push the unit 14 and energize the electromagnet. Thus, the unit 14 described in Leith is not a scraper.

The carriage 12 is also not a scraper. Rather, the carriage 12 includes legs 18 and 22 with rollers 20 and 24 attached thereto and that are in rolling contact with the interior of the pipe.

(Leith, col. 2, lines 8-17). Leith refers to materials (radioisotopes), radiographic weld inspection, clean-out cables, debris and testing materials, but not scraping applications.

Leith also does not disclose or suggest providing a scraper “disposed about at least a portion of the protective shield within the conduit..” as called for by claim 26.

Further, Leith does not disclose or suggest “applying an external force to the scraper to move the scraper within the conduit and longitudinally along the protective shield between first and second positions to thereby clean the portion of the protective shield over which the scraper moves” as called for by claim 26.

In view of the forgoing amendments and remarks, the Applicants respectfully submit that Clayton and Leith are each deficient relative to claim 26, and that claim 26 is not obvious over the combination of Clayton and Leith as asserted in the Office action.

Moreover, Applicants respectfully submit that the required suggestion or motivation to combine the Clayton and Leith patents is lacking. For example, Clayton is directed to an underground oil pipeline, whereas Leith is related to a device that is moved or propelled through a pipe that operates by a person manually pushing a unit 14 to move the unit 14 along the pipe. Incorporating the device described in Leith with the system described in Clayton would result in a person being underwater and pushing the electromagnetic unit 14 while underwater. Clearly, such an arrangement is not feasible or desirable.

Moreover, Leith clearly explains that the carriage 12 is moved through the passageway of the pipe. Incorporating the carriage 12 into the pipeline system described in Clayton would result in the flow of oil through the pipe being impeded or disrupted by the carriage 12. Reduced oil flow decreases the efficiency of the system and the value of the oil output.

Additionally, Clayton is related to monitoring temperatures of oil as it passes through a pipe since oil that cools to a sufficient degree may form deposits along the interior of the pipe, thus decreasing the rate at which oil flows through the pipe. Leith, on the other hand, is not related to oil or to monitoring the temperature of oil. When incorporating the unit 14 described by Leith into the system described by Clayton, deposits that are formed by cooled oil may inhibit the movement of the electromagnetic unit 14 described in Leith. The unit 14 is used to generate magnetic fields, not to scrape a pipe, thus rendering the device described in Leith less effective or inoperable.

Applicants also note that Clayton describes the problems when known “mechanical pigs” which are apparently used to scrape the interior surface of a pipe. More particularly, Clayton explains that “[n]evertheless, deposits will build up which, if a pipeline is to be [sic] maintained in use will need to be removed. A technique commonly used in such deposit removal involves the periodic insertion of mechanical pigs into the lower end of the pipeline, for later removal at the upper end. This technique is used both to remove any deposit formation that may have built up and as a preventative measure before signification deposits appear although it can be disruptive and/or expensive.” (Clayton, col. 1, lines 55-62). (emphasis added). Accordingly, Clayton teaches away from adding a scraper to clean the inside of a pipe since Clayton describes the problems with such a configuration and, instead, attempts to solve the problem of oil deposits in another manner.

Based on the forgoing amendments and remarks, Applicants respectfully submit that claim 26 is patentable over Clayton in view of Leith. Dependent claims 27-29 incorporate all of the elements and limitations of independent claim 26 and add novel and non-obvious limitations thereto. Therefore, the Applicants respectfully request that the rejection of claims 26-29 under 35 U.S.C. §103(a) be withdrawn.

III. Claim 30 Is Patentable Over Clayton in View of Leith and Further In View of Tsui.

Applicants acknowledge that the Examiner has not cited a single reference that discloses each and every limitation of claim 30. Rather, dependent claim 30 is rejected under 35 U.S.C. §103(a) as being unpatentable over Clayton and Leith, and further in view of U.S. Patent No. 6,206,978 to Tsui (“Tsui”). Applicants respectfully submit that Clayton and Leith cannot support the rejection. Tsui clearly does not cure the deficiencies of Clayton and Leith. Further, as discussed above, the required suggestion or motivation to combine the Clayton and Leith patents is clearly lacking.

Tsui fails to disclose or suggest at least one solenoid or permanent magnet installed outside of a pipe. In contrast, Tsui describes an apparatus for cleaning aquarium tanks. Additionally, required suggestion or motivation to combine the Tsui with the Clayton and Leith patents is lacking since Tsui relates to cleaning of fish aquariums, Clayton relates to underwater oil pipelines, and Leith relates to a manually actuatable device for moving debris and other

materials through a pipeline. Accordingly, Applicants respectfully request that the rejection of claim 30 under 35 U.S.C. §103(a) be withdrawn.

IV. New Claims 39-48 Are Patentable Over Clayton, Leith and Tsui.

New dependent claims 39-48 incorporate all of the elements and limitations of independent claims 26. Accordingly, Applicants respectfully submit that new claims 39-48 are patentable over the cited references for the reasons set forth above.

Further, Applicants note that the references are deficient for other reasons. For example, the cited references do not disclose or suggest, and teach away from, “an aseptic environment” and “an aseptic food processing environment.” as called for by claims 40 and 41. For example, Clayton describes a pipeline for oil, Leith describes a having debris and other materials, and Tsui describes a fish aquarium, all of which are not aseptic environments suitable for food processing.

V. CONCLUSION.

Based on the forgoing amendments and remarks, the Applicants respectfully submit that the application is in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case. If there are any remaining issues that can be resolved by telephone, Applicants invite the Examiner to contact the undersigned at the number indicated below.

Respectfully submitted,

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